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- Ito, Takatoshi. 1999. Capital flows in Asia. NBER Working Paper no. 7134. Cambridge, Mass.: National Bureau of Economic Research.
- Ito, Takatoshi, Eiji Ogawa, and Yuri N. Sasaki. 1998. How did the dollar peg fail in Asia? *Journal of the Japanese and International Economies* 12 (4): 256–304.
- Kaminsky, Graciela, Saul Lizondo, and Carmen M. Reinhart. 1997. Leading indicators of currency crises. IMF Working Paper no. WP/97/79. Washington, D.C.: International Monetary Fund.
- Kawai, Masahiro. 1997. East Asia currency turbulence: Implications of financial system fragility. A paper prepared for a seminar at the World Bank, Washington, D.C., November.
- Kawai, Masahiro, and Shigeru Akiyama. 1998. The roles of the world's major currencies in exchange rate arrangements. *Journal of the Japanese and International Economies* 12 (4): 334–87.
- Krugman, Paul. 1987. Pricing to market when the exchange rate changes. In *Real-financial linkages among open economies*, ed. Sven W. Arndt and J. David Richardson, 49–70. Cambridge: MIT Press.
- Marston, Richard C. 1990. Pricing to market in Japanese manufacturing. *Journal of International Economics* 29 (3/4): 217–36.
- Miller, Victoria. 1996. Speculative currency attacks with endogenously induced commercial bank crises. *Journal of International Money and Finance* 15 (3): 383–403.
- Velasco, Andres. 1987. Financial crises and balance of payments crises: A simple model of the southern cone experience. *Journal of Development Economics* 27 (1/2): 263–83.

Comments Francis T. Lui

The main issue raised by Ogawa and Sun is what would have happened to capital inflows in Thailand, Indonesia, and Korea had they adopted a basket peg system. These countries had adopted a de facto dollar peg during the sample period, but Japanese bank loans to them were significantly higher than those from the United States. It seems to make sense if their currencies were at least partially pegged to the yen. From the policy perspective, it is therefore of interest to measure the effects on capital inflows if the Japanese yen had a larger weight in determining the exchange rates in these countries.

The authors have proceeded in two steps to answer this question: one step based on regression analysis, the other on counterfactual simulations. There are therefore two sets of results that need to be discussed.

The authors first attempt to measure the effects of several determinants of capital inflows (as a share of GDP). These include, among others, the home country's interest rate, exchange rate-adjusted U.S. interest rate, exchange rate-adjusted Japanese interest rate, and foreign exchange risks of

the domestic currency against both the dollar and the yen. Significant t -values have only been found for the domestic interest rate variable for Thailand, and exchange rate risks against the dollar for Thailand and Korea. In an earlier version of the paper, the authors tried to use interest rate differentials between domestic currencies and the two foreign currencies. The latter method yielded even less significant results.

One may want to understand why the seemingly disappointing t -values are obtained for Korea and Indonesia. There may be two problems. The regressions have controlled for interest rates in the United States and Japan. An increase in the domestic interest rate, holding other interest rates constant, is similar to a rise in interest rate differential. In principle, when there is free flow of capital, the possibility of interest rate arbitrage implies that the interest rate differential between two countries reflects the relative risk premium of holding one of their currencies. The risk premium may reflect various types of risks, e.g., devaluation risks, default risk of banks in the home country, sovereign risk, or even the loosely labeled "Asian risk premium" popularized in the media. In Ogawa and Sun's paper, there is an attempt to make adjustment for the devaluation risk. Such adjustment is necessary. Otherwise, an increase in the domestic interest rate could simply be due to a rise in risk premium. This would not cause capital to flow in, and the t -value of the domestic interest rate variable would not be significant. However, is the adjustment in the paper big enough or too small?

Adjustment for exchange risks is based on the forecasted values of exchange rates, which are estimated by an ARIMA (1,1,1) model using historical data of the exchange rates for the past five years. Although this method is a reasonable one, figure 5.13 seems to indicate that the performance of the ARIMA model in making forecasts is not impressive. (The baht:U.S. dollar rate is a notable exception.) Has enough information been captured in historical data of the exchange rates? Do practitioners in these markets pay more attention to risks from sources other than exchange rate fluctuations? The paper has not explicitly adjusted for some of the risks listed above, such as default risks of banks. This may be a reason why significant results have not been obtained in some cases.

There are also other possible explanations for the low t -values. Suppose that there is an exogenous technological shock in the home country causing the interest rate to go up. Because of various types of institutional rigidities, it may take time for capital to come in. Capital flows at time t may depend on interest rates of the home and foreign countries at time $t - i$, $i = 1, 2, \dots, n$. The regression equation has lag terms of only one period. It is not clear that this is good enough to capture reality.

The data used include those up to the second quarter of 1997, when the Asian financial crisis had not taken place. If postcrisis data were also included, forecast exchange risks would likely be bigger. Data of the fi-

nancial turmoil period should also show that there were large capital outflows. Perhaps regressions using updated data will show stronger results than those reported in the paper.

Simulations based on estimated parameters in the regressions constitute the second set of results. The main one is that capital inflows in Korea and Thailand would have decreased if a basket peg had been adopted. It would be advisable to have a more detailed theoretical discussion on why these results are obtained. There are two issues that may be of concern here.

First, the estimated parameters used in the simulations may not be robust, in view of the low *t*-values for some parameters. Second, moving to the basket peg means that U.S. investors have to face more exchange rate volatility, whereas Japanese investors are less affected by exchange rate fluctuations. These cause opposite effects on capital inflows. The net outcome depends on a lot of institutional and historical factors not discussed in the paper.

Finally, the paper has gone some distance in assessing the impact of moving to a basket peg. However, further improvements in the estimation method and a longer data series are still desirable.

Comments Pranee Tinakorn

As a native of Thailand, I started reading this paper with great interest. This is because among the many factors alleged to have caused the crisis in Thailand, capital account liberalization under a fixed exchange rate has been seen as one of the main causes. Although, in my view, the crisis in Thailand was a result of both real sector and financial sector problems, the capital inflow and its reversal have been in the limelight.

First, I would like to summarize my reading of the paper and then offer my comments. In this paper, the authors tried to examine how the exchange rate, which was tied to the U.S. dollar, affected capital inflows to the three crisis-hit Asian countries: Thailand, Korea, and Indonesia (all of which had sought IMF financial support).

I agree with the authors' point that although these countries may be said to adopt the managed float system, as in Indonesia and Korea, or the basket peg system, as in Thailand, they all, as a matter of fact, were pegging to the U.S. dollar.

As can be seen from the movement of local currency to the dollar in figures 5.1–5.2 of the paper, this is more true in the case of Thailand than in the other two countries included in the study. The nominal baht value